REMARKS

Claims 3, 6, 16, 25 and 29 have been amended and new claims 44-46 have been added. Claims 1-46 are pending in the application. Reconsideration of the application is requested in view of the amendments and the remarks to follow.

The amendments to the specification update related application information and/or address minor informalities noted during review.

Figs. 3 and 4 have been modified as shown in the marked-up-in-red versions thereof included herewith in order to bring the specification and drawings into mutual conformance. The Examiner's approval of these modifications to the drawing is requested. Figs. 1, 3, 4, 6-8 and 11 have been modified to address the concerns noted on the PTO-948 accompanying the Office Action. Revised formal drawings reflecting these modifications are enclosed under separate cover addressed to the Chief Draftsman.

The amendments to claims 3, 6, 16 and 29 address minor informalities noted during review, and the amendment to claim 25 is responsive to the comments in the Office Action (page 2, item 4), however, these amendments are not intended to alter the scope of the claims.

The amendments to the specification, drawings and claims are supported at least by text appearing at p. 6, line 10 through p. 17, line 20 of the application as originally filed. No new matter is added by the amendments to the specification, drawings or claims.

Art Rejections:

Claims 1-41 are stated (page 3) to be rejected under 35 U.S.C. 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,522,767 B1 to Moskowitz et al. (hereinafter "Moskowitz"). However, no separate commentary is provided relative to claims 42 and 43 and such claims are included in the body of the discussion of the rejection. Accordingly, Applicant assumes that claims 42 and 43 were intended to be included in the anticipation rejection relative to Moskowitz.

Anticipation is a legal term of art. Applicant notes that in order to provide a valid finding of anticipation, several conditions must be met: (i) the reference must include every element of the claim within the four corners of the reference (see MPEP §2121); (ii) the elements must be set forth as they are recited in the claim (see MPEP §2131); (iii) the teachings of the reference cannot be modified (see MPEP §706.02, stating that "No question of obviousness is present" in conjunction with anticipation); and (iv) the reference must enable the invention as recited in the claim (see MPEP §2121.01). Additionally, (v) these conditions must be simultaneously satisfied.

The §102 rejection of claims 1-43 is believed to be in error. Specifically, the PTO and Federal Circuit provide that §102 anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference. *In re Spada*, 911 F.2d 705, 15 USPQ2d 1655 (Fed. Cir. 1990). The corollary of this rule is that the absence from a cited §102 reference of any claimed element negates the anticipation. *Kloster Speedsteel AB, et al. v. Crucible, Inc., et al.*, 793 F.2d 1565, 230 USPQ 81 (Fed. Cir. 1986).

No §103 rejection has been lodged regarding claims 1-43. Accordingly, if Applicant can demonstrate that Moskowitz does not disclose any one claimed element with respect to claims 1-43, the §102 rejections must be withdrawn, and a subsequent non-final action made with a different rejection in the event that the Examiner still finds any of such claims to be not allowable.

Applicant notes the requirements of MPEP §2131, which states that "TO ANTICIPATE A CLAIM, THE REFERENCE MUST TEACH EVERY ELEMENT OF THE CLAIM." This MPEP section further states that "'A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). 'The identical invention must be shown in as complete detail as is contained in the ... claim.' *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim, but this is not an ipsissimis verbis test, i.e., identity of terminology is not required. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)."

Moskowitz describes (Title) "Optimization methods for the insertion, protection, and detection of digital watermarks in digitized data". Moskowitz teaches a specific method for doing this wherein (Abstract) "The implementations of digital watermarks can be optimally suited to particular transmission, distribution and storage mediums given the nature of digitally-sampled audio, video and other multimedia works. Watermark application parameters can be adapted to the individual characteristics of a given digital sample stream.

Watermark information can be either carried in individual samples or in relationships between multiple samples, such as in a waveform shape. More optimal models may be obtained to design watermark systems that are tamper-resistant given the number and breadth of existent digitized sample options with different frequency and time components. The highest quality of a given content signal may be maintained as it is mastered, with the watermark suitably hidden, taking into account usage of digital filters and error correction. The quality of the underlying content signals can be used to identify and highlight advantageous locations for the insertion of digital watermarks. The watermark is integrated as closely as possible to the content signal, at a maximum level to force degradation of the content signal when attempts are made to remove the watermarks."

In contrast, claim 1 recites "A method for tracking a requested signal, the method comprising: receiving a request for the requested signal; generating transaction identification data which identifies the received request; and including a pattern in the requested signal to form a watermarked signal using a predetermined basis signal, wherein the transaction identification data can be derived from the pattern; further wherein the inclusion of the basis signal in the requested signal is designed to introduce no more than a predetermined maximum level of perceptibility to the requested signal", which is not taught or disclosed by Moskowitz.

Moskowitz provides no teaching at all of tracking a requested signal, of receiving a request for such a signal, of generating transaction identification data which identifies the received request or of a watermarked signal using a predetermined basis signal wherein the transaction identification data can be

derived from the pattern, as recited in claim 1. Indeed, Moskowitz teaches (col. 18, line 40 et seq., that:

> The usefulness of this type of operation is demonstrated in the following scenario:
> People are interested in simply proving that their copyrighted sample was dubbed into another recording, not the specifics of ownership of the sample used in the dubbing. So, this implies that only a single, or limited number of watermark keys would be used to mark samples, and hence, the decode key candidates are limited, since the same key would be used to encode-simple copyright information which never varies from copy to copy.

The passages cited in the Office Action fail to provide the invention as recited in claim 1. Further, the above-noted passage clearly shows that the problems being addressed by Moskowitz are different than the issues being addressed by the present disclosure and embraced within the ambit of Applicant's claims. For at least these reasons, the anticipation rejection of claim 1 is prima facie defective and should be withdrawn, and claim 1 should be allowed.

Also in contrast, claim 7 recites "A method for enabling embedding of transaction-specific identification data into a requested signal, the method comprising: logically dividing the requested signal into segments; for each segment, embedding a first logical value in the segment to form a first embedded segment; embedding a second logical value in the segment to form a second embedded segment; and including both the first and second embedded segments in a composite signal", which is not taught or disclosed by Moskowitz.

The Office Action cites (p. 5, item 12) col. 4, lines 6-17 of Moskowitz relative to claim 7. The cited portion is reproduced below:

> The present invention additionally relates to a method of analyzing composite digitized signals for watermarks including obtaining a composite signal, obtaining an unwatermarked sample signal, time aligning the unwatermarked sample signal to the composite signal,

gain adjusting the time aligned unwatermarked sample signal to the composite signal, estimating a pre-composite signal using the composite signal and the gain adjusted unwatermarked sample signal, estimating a watermarked sample signal by subtracting the estimated pre-composite signal for the composite signal, and scanning the estimated watermark sample signal for watermarks.

This passage is concerned with analysis of watermarked signals and is unrelated to a method for enabling embedding of transaction-specific identification data into a requested signal, as recited in claim 7. As such, it is impossible for this passage to teach or disclose logically dividing a requested signal into segments or embedding first or second logical values into each segment, as recited in claim 7. For at least these reasons, the anticipation rejection of claim 7 is defective and should be withdrawn, and claim 7 should be allowed.

In further contrast, claim 12 recites "A method for embedding transaction-specific identification data into a requested signal, the method comprising: retrieving a composite signal which includes, for each of one or more corresponding portions of the requested signal, a first marked segment which represents a first logical value embedded in the corresponding portion of the requested signal and a second marked segment which represents a second logical value embedded in the corresponding portion of the requested signal; for each of the corresponding portions of the requested signal, selecting segments of the composite signal according to logical values of corresponding bits of the transaction-specific identification data; and combining the selected segments to form a watermarked signal which includes the transaction-specific identification data embedded therein", which is not taught or disclosed by Moskowitz.

The Office Action cites (p. 6, item 17) col. 16, lines 39-45, col. 19, lines 57-61 and Fig. 9 of Moskowitz relative to claim 12. The citations do not

correspond to logical breaks in the text and Moskowitz has only two figures, viz., Fig. 1 and Fig. 2. Clarification is requested.

Col. 16, lines 35-54 of Moskowitz is reproduced below:

> Ultimately, the inability to resell or openly trade unwatermarked content will help enforce, as well as dictate, the necessity of watermarked content for legal transactions.
>
> The mechanisms discussed above reach physical limits as the intent of signal filtering and error correction are ultimately determined to be effective by humans--decidedly analog creatures. All output devices are thus also analog for playback.
>
> The present invention allows for a preprocessed and preanalyzed signal stream and watermark data to be computed to describe an optimized envelope for the insertion of digital watermarks and creation of a pseudo-random key, for a given digitized sample stream. Randomizing the time variable in evaluating discrete sample frames of the content signal to introduce another aspect of randomization could further the successful insertion of a watermark. More importantly, aspects of perceptual coding are suitable for methods of digital watermarks or super-audible spread spectrum techniques that improve on the art described by the Preuss et al. patent described above.

Applicant finds no mention whatsoever in this passage of anything relating to: (i) any "method for embedding transaction-specific identification data into a requested signal", (ii) "retrieving a composite signal which includes", (iii) "a first marked segment which represents a first logical value embedded in the corresponding portion of the requested signal", (iv) "a second marked segment which represents a second logical value embedded in the corresponding portion of the requested signal", (v) "selecting segments of the composite signal according to logical values of corresponding bits of the transaction-specific identification data" (vi); "combining the selected segments to form a watermarked signal" or (vii) "which includes the transaction-specific identification data embedded therein", as recited in claim 12.

Col. 19, lines 43-65 of Moskowitz is reproduced below:

> The second method for varying of the encoding/decoding algorithms corresponds to increased security. This method is easier, since it does not require the relatively computationally-expensive process of further analyzing the samples in a frame passed to the Framework. In this method, the Framework selects a new CODEC, from among a list of pre-defined CODECs, to which to pass the sample frame as a function of the pseudo-random key employed to encode/decode the watermark. Again, this is a straightforward application of framework architecture which provides automated variance of algorithms to encode and decode a single watermark versus limitations evident in the analysis of a single random noise signal inserted over the entire content signal as proposed by Digimarc, NEC, Thorn EMI and IBM under the general guise of spread spectrum, embedded signaling schemes.
>
> It is important to note that the modular framework architecture, in which various modules including CODECs are linked to keys, provides a basic method by which the user can manually accomplish such algorithmic variations for independent watermarks. The main difference detailed above is that an automated method to accomplish this can be used within single watermarks.

This passage fails to cure any of the deficiencies noted above with respect to the prior-cited passage. As such, these passages, alone or in any proper combination, fail to teach or disclose the subject matter of claim 12. For at least these reasons, the anticipation rejection of claim 12 is prima facie defective and should be withdrawn, and claim 12 should be allowed.

The Office Action cites (p. 7, continuing on p. 8, item 19) col. 2, lines 26-46; col. 3, lines 19-23; col. 6, lines 42-52 relative to claim 14. Cols. 2 and 3 are portions of the Summary, while col. 6 is a portion of the Description of the Drawings; as such, this salmagundi of disparate portions of Moskowitz fails to meet the requirements for a finding of anticipation set forth in MPEP §2131 (supra). These cited portions of Moskowitz are reproduced below, beginning with col. 2, lines 26-46:

> The present invention relates to implementations of digital watermarks that are optimally suited to particular transmission, distribution and storage mediums given the nature of digitally-sampled audio, video, and other multimedia works.
>
> The present invention also relates to adapting watermark application parameters to the individual characteristics of a given digital sample stream.
>
> The present invention additionally relates to the implementation of digital watermarks that are feature-based. That is, a system where watermark information is not carried in individual samples, but is carried in the relationships between multiple samples, such as in a waveform shape. The present invention envisions natural extensions for digital watermarks that may also separate frequencies (color or audio), channels in 3D while utilizing discreteness in feature-based encoding only known to those with pseudo-random keys (i.e., cryptographic keys) or possibly tools to access such information, which may one day exist on a quantum level.

These passages variously describe feature-based watermarks having no transaction-specific content, i.e., material apparently unrelated to the recitation of claim 14. The next cited passage, col. 3, lines 19-23, does not correspond to logical intervals in the cited text, and, as a result, Applicant notes that col. 3, lines 18-23, recites that:

> The present invention additionally relates to a method of encoding and decoding watermarks in a signal where, rather than individual samples, insertion and detection of abstract signal features to carry watermark information in the signal is-done.

Applicant notes that the next-cited passage, viz., col. 6, lines 42-52, again does not correspond to logically determinable portions of Moskowitz. As a result, col. 6, line 40 et seq. is reproduced below:

> Optimization processes must take into consideration the general art of digitization systems where sampling and quantizing are fundamental physical parameters. For instance, discrete time sampling has a natural limit if packets of time are used, estimated at 1.times.10.sup.-42 second. This provides a natural limit to the sampling operation. Also, since noise is preferable to distortion, quantizing will vary given different storage mediums (magnetic, optical, etc.) or transmission mediums (copper, fiber optic, satellite,

> etc.) for given digitized samples (audio, video, etc.). Reducing random bit error, quantization error, burst error, and the like is done for the singular goal of preserving quality in a given digitized sample. Theoretical perfect error correction is not efficient, given the requirement of a huge allocation of redundant data to detect and correct errors. In the absence of such overhead, all error correction is still based on data redundancy and requires the following operations: error detection to check data validity, error correction to replace erroneous data, and error concealment to hide large errors or substitute data for insufficient data correction. Even with perfect error correction, the goal of a workable digital watermark system for the protection of copyrights would be to distribute copies that are less than perfect but not perceivably different from the original. Ironically, in the present distribution of multimedia, this is the approach taken by content creators when faced with such distribution mechanisms as the INTERNET. As an example, for audio clips commercially exchanged on the World Wide Web (WWW), a part of the INTERNET, 8 bit sampled audio or audio downsampled from 44.1 kHz (CD-quality), to 22 kHz and lower. Digital filters, however, are not ideal because of trade-offs between attenuation and time-domain response, but provide the engineer or similarly-trained individual with a set of decisions to make about maximizing content quality with minimum data overhead and consideration of the ultimate delivery mechanism for the content (CDs, cable television, satellite, audio tape, stereo amplifier, etc.).

In contrast to the cited portions of Moskowitz, claim 14 recites "A computer-readable storage medium on which is stored computer code which, when executed by a computer, causes the computer to enable tracking a requested signal by: receiving a request for the requested signal; generating transaction identification data which identifies the received request; including a pattern in the requested signal to form a watermarked signal using a predetermined basis signal, wherein the transaction identification data can be derived from the pattern; further wherein the inclusion of the basis signal in the requested signal is designed to introduce no more than a predetermined maximum level of perceptibility to the requested signal", which is not taught or disclosed by Moskowitz.

For at least these reasons, the anticipation rejection of claim 14 is prima facie defective and should be withdrawn, and claim 14 should be allowed.

The Office Action cites (pp. 9-10, item 25) col. 3, line 59 through col. 4, line 17 of Moskowitz relative to the rejection of claim 20. These passages are reproduced below:

> The present invention further relates to a method of encoding watermarks including inverting at least one watermark bit stream and encoding a watermark including the inverted watermark bit stream.
>
> The present invention also relates to a method of decoding watermarks by considering an original watermark synchronization marker, an inverted watermark synchronization marker, and inverted watermarks, and decoding based on those considerations.
>
> The present invention also relates to a method of encoding and decoding watermarks in a signal using a spread spectrum technique to encode or decode where information is encoded or decoded at audible levels and randomized over both frequency and time.
>
> The present invention additionally relates to a method of analyzing composite digitized signals for watermarks including obtaining a composite signal, obtaining an unwatermarked sample signal, time aligning the unwatermarked sample signal to the composite signal, gain adjusting the time aligned unwatermarked sample signal to the composite signal, estimating a pre-composite signal using the composite signal and the gain adjusted unwatermarked sample signal, estimating a watermarked sample signal by subtracting the estimated pre-composite signal for the composite signal, and scanning the estimated watermark sample signal for watermarks.

In contrast, claim 20 recites "A computer-readable storage medium on which is stored computer code which, when executed by a computer, causes the computer to enable embedding of transaction-specific identification data into a requested signal by: logically dividing the requested signal into segments; for each segment, embedding a first logical value in the segment to form a first embedded segment; embedding a second logical value in the segment to form a second

embedded segment; and including both the first and second embedded segments in a composite signal", which is not taught or disclosed by Moskowitz.

As may be seen from inspection of the cited passages, these portions of Moskowitz are silent with respect to "embedding of transaction-specific identification data into a requested signal", as recited in claim 20. For at least these reasons, the anticipation rejection of claim 20 is prima facie defective and should be withdrawn, and claim 20 should be allowed.

The Office Action cites (pp. 11-12, item 30) extensive portions of Moskowitz, i.e., col. 1, lines 60-64; col. 2, lines 58-67; col. 3, lines 19-23; col. 4, lines 6-17 of Moskowitz as disclosing the subject matter of claim 25. Applicant respectfully notes that it is inapposite to cite various different portions of a reference in attempting to reject the subject matter of a specific claim for reasons noted above.

Further, col. 4, lines 6-17 states that:

> The present invention additionally relates to a method of analyzing composite digitized signals for watermarks including obtaining a composite signal, obtaining an unwatermarked sample signal, time aligning the unwatermarked sample signal to the composite signal, gain adjusting the time aligned unwatermarked sample signal to the composite signal, estimating a pre-composite signal using the composite signal and the gain adjusted unwatermarked sample signal, estimating a watermarked sample signal by subtracting the estimated pre-composite signal for the composite signal, and scanning the estimated watermark sample signal for watermarks.

This passage provides no mention whatsoever of "embedding transaction-specific identification data into a requested signal" or of "selecting segments of the composite signal according to logical values of corresponding bits of the transaction-specific identification data; and combining the selected segments to

form a watermarked signal which includes the transaction-specific identification data embedded therein", as recited in claim 25.

Col. 17, lines 18-44 of Moskowitz states that:

> Taken to another level for digital watermarking, which is necessary for content that may be compressed and decompressed, forward adaptive allocation of bits and backward adaptive allocation provide for encoding signals into content signals in a manner such that information can be conveyed in the transmission of a given content signal that is subsequently decoded to convey the relatively same audible signal to a signal that carries all of its bits--e.g., no perceptual differences between two signals that differ in bit size. This coding technique must also be preanalyzed to determine the most likely sample bits, or signal components, that will exist in the smaller sized signal. This is also clearly a means to remove digital watermarks placed into LSBs, especially when they do not contribute theoretically perceptible value to the analyzed signal. Further methods for data reduction coding are similarly important for preanalyzing a given content signal prior to watermarking. Frequency domain coders such as subband and transform bands can achieve data reduction of ratios between 4:1 and 12:1. The coders adaptively quantize samples in each subband based on the masking threshold in that subband (See Pohlmann, Principles of Digital Audio). Transform coders, however, convert time domain samples into the frequency domain for accomplishing lossless compression. Hybrid coders combine both subband and transform coding, again with the ultimate goal of reducing the overall amount of data in a given content signal without loss of perceptible quality.

This passage is concerned with preanalysis of coding techniques and is not discernibly related to the subject matter of claim 25. Clarification of the rejection is requested.

In contrast, claim 25 recites "A computer-readable storage medium on which is stored computer code which, when executed by a computer, causes the computer to enable embedding transaction-specific identification data into a requested signal by: retrieving a composite signal which includes, for each of one or more corresponding portions of the requested signal, a first marked segment which represents a first logical value embedded in the corresponding portion of the

requested signal and a second marked segment which represents a second logical value embedded in the corresponding portion of the requested signal; for each of the corresponding portions of the requested signal, selecting segments of the composite signal according to logical values of corresponding bits of the transaction-specific identification data; and combining the selected segments to form a watermarked signal which includes the transaction-specific identification data embedded therein", which is not taught or disclosed by Moskowitz.

For at least these reasons, the anticipation rejection of claim 25 is prima facie defective and should be withdrawn, and claim 25 should be allowed.

Claim 27 recites "A computer system comprising: a processor; a memory coupled to the processor; and a watermarker which executes in the processor from the memory and which, when executed, enables tracking of a requested signal by: receiving a request for the requested signal; generating transaction identification data which identifies the received request; and including a pattern in the requested signal to form a watermarked signal using a predetermined basis signal, wherein the transaction identification data can be derived from the pattern; further wherein the inclusion of the basis signal in the requested signal is designed to introduce no more than a predetermined maximum level of perceptibility to the requested signal", which is not taught or disclosed by Moskowitz.

The Office Action cites (p. 12, item 32) col. 2, lines 26-46; col. 3, lines 19-23; col. 10, lines 62-67 and col. 11, lines 21-27 as providing the subject matter of claim 27. Applicant has already provided substantial evidence showing that Moskowitz is inapposite to, and does not anticipate, the subject matter of Applicant's disclosure or claims. More specifically, Moskowitz is not concerned

with anything relating in any way to "transaction identification data which identifies the received request" or other related features as recited in claim 27. Again, clarification of the rejection and identification of relevant teachings is requested. For at least these reasons, the anticipation rejection of claim 27 is prima facie defective and should be withdrawn, and claim 27 should be allowed.

Claim 33 recites "A computer system comprising: a processor; a memory coupled to the processor; and a blank watermarker which executes in the processor from the memory and which, when executed, enables embedding of transaction-specific identification data into a requested signal by: logically dividing the requested signal into segments; for each segment, embedding a first logical value in the segment to form a first embedded segment; embedding a second logical value in the segment to form a second embedded segment; and including both the first and second embedded segments in a composite signal", which is not taught or disclosed by Moskowitz.

The Office Action cites (p. 14, item 38) col. 4, lines 6-17; col. 10, lines 62-67; col. 11, lines 1-27, i.e., diverse bits and pieces of Moskowitz as providing the subject matter of claim 33. As noted above, Moskowitz is inapposite to, and does not anticipate, the subject matter of Applicant's disclosure or claims. More specifically, Moskowitz is not concerned with anything relating in any way to anything that "enables embedding of transaction-specific identification data into a requested signal" or any of the other subject matter recited in claim 33. For at least these reasons, the anticipation rejection of claim 33 is prima facie defective and should be withdrawn, and claim 33 should be allowed.

Claim 38 recites "A computer system comprising: a processor; a memory coupled to the processor; and a watermarker which executes in the processor from the memory and which, when executed, embeds transaction-specific identification data into a requested signal by: retrieving a composite signal which includes, for each of one or more corresponding portions of the requested signal, a first marked segment which represents a first logical value embedded in the corresponding portion of the requested signal and a second marked segment which represents a second logical value embedded in the corresponding portion of the requested signal; for each of the corresponding portions of the requested signal, selecting segments of the composite signal according to logical values of corresponding bits of the transaction-specific identification data; and combining the selected segments to form a watermarked signal which includes the transaction-specific identification data embedded therein", which is not taught or disclosed by Moskowitz.

The Office Action variously cites (p. 16, item 43) col. 1, lines 60-64; col. 2, lines 58-67; col. 3, lines 19-23; col. 4, lines 6-17; col. 10, lines 62-67; col. 11, lines 1-27; and col. 17, lines 18-44 in an effort to somehow derive anticipation of the subject matter of claim 38. As noted above, it is inappropriate to "mix and match" various portions of a reference in an effort to determine anticipation, and, as also noted above, Moskowitz is not concerned with anything relating in any way to anything that "enables embedding of transaction-specific identification data into a requested signal" or any of the other subject matter recited in claim 38. For at least these reasons, the anticipation rejection of claim 38 is prima facie defective and should be withdrawn, and claim 38 should be allowed.

Claim 40 recites "A computer-readable storage medium on which is stored a signal which comprises: one or more segments of a subject signal; for each of the segments, a first segment instance representing a first logical value of portion of a pattern which is embedded in the segment; and a second segment instance representing a second logical value of the portion embedded in the segment", which is not taught or disclosed by Moskowitz.

The Office Action cites (p. 17, item 40) a salmagundi of "bits and pieces" of Moskowitz, viz., col. 3, lines 50-59 and 59-67 and col. 4, lines 1-17 thereof. Col. 3, line 50 et seq. states that:

> The present invention also relates to a method of generating and quantizing a local noise signal to contain watermark information where the noise signal is a function of at least one variable which depends on key and processing state information.
>
> The present invention also relates to a method of dithering watermark quantizations such that the dither changes an absolute quantization value, but does not change a quantization level or information carried in the quantization.
>
> The present invention further relates to a method of encoding watermarks including inverting at least one watermark bit stream and encoding a watermark including the inverted watermark bit stream.
>
> The present invention also relates to a method of decoding watermarks by considering an original watermark synchronization marker, an inverted watermark synchronization marker, and inverted watermarks, and decoding based on those considerations.
>
> The present invention also relates to a method of encoding and decoding watermarks in a signal using a spread spectrum technique to encode or decode where information is encoded or decoded at audible levels and randomized over both frequency and time.
>
> The present invention additionally relates to a method of analyzing composite digitized signals for watermarks including obtaining a composite signal, obtaining an unwatermarked sample signal, time aligning the unwatermarked sample signal to the composite signal, gain adjusting the time aligned unwatermarked sample signal to the

> composite signal, estimating a pre-composite signal using the composite signal and the gain adjusted unwatermarked sample signal, estimating a watermarked sample signal by subtracting the estimated pre-composite signal for the composite signal, and scanning the estimated watermark sample signal for watermarks.

Applicant is unable to discern any logical relationship whatsoever between, e.g., "generating and quantizing a local noise signal", "dithering watermark quantizations", "considering an original watermark synchronization marker", "decoding watermarks by considering an original watermark synchronization marker", "encoding and decoding watermarks in a signal using a spread spectrum technique", "analyzing composite digitized signals for watermarks including obtaining a composite signal, obtaining an unwatermarked sample signal" etc. that has any discernible relationship to the subject matter recited in claim 40. Clarification of the rejection and of any perceived relationship between the recited subject matter and the cited portions of the reference is requested. For at least these reasons, the anticipation rejection of claim 40 is prima facie defective and should be withdrawn, and claim 40 should be allowed.

Conclusion

Claims 1-46 are in condition for allowance. Applicant respectfully requests reconsideration and issuance of the subject application. Should any matter in this case remain unresolved, the undersigned attorney respectfully requests a telephone conference with the Examiner to resolve any such outstanding matter.

Respectfully Submitted,

Date: Jan. 12, 2004

By: _____

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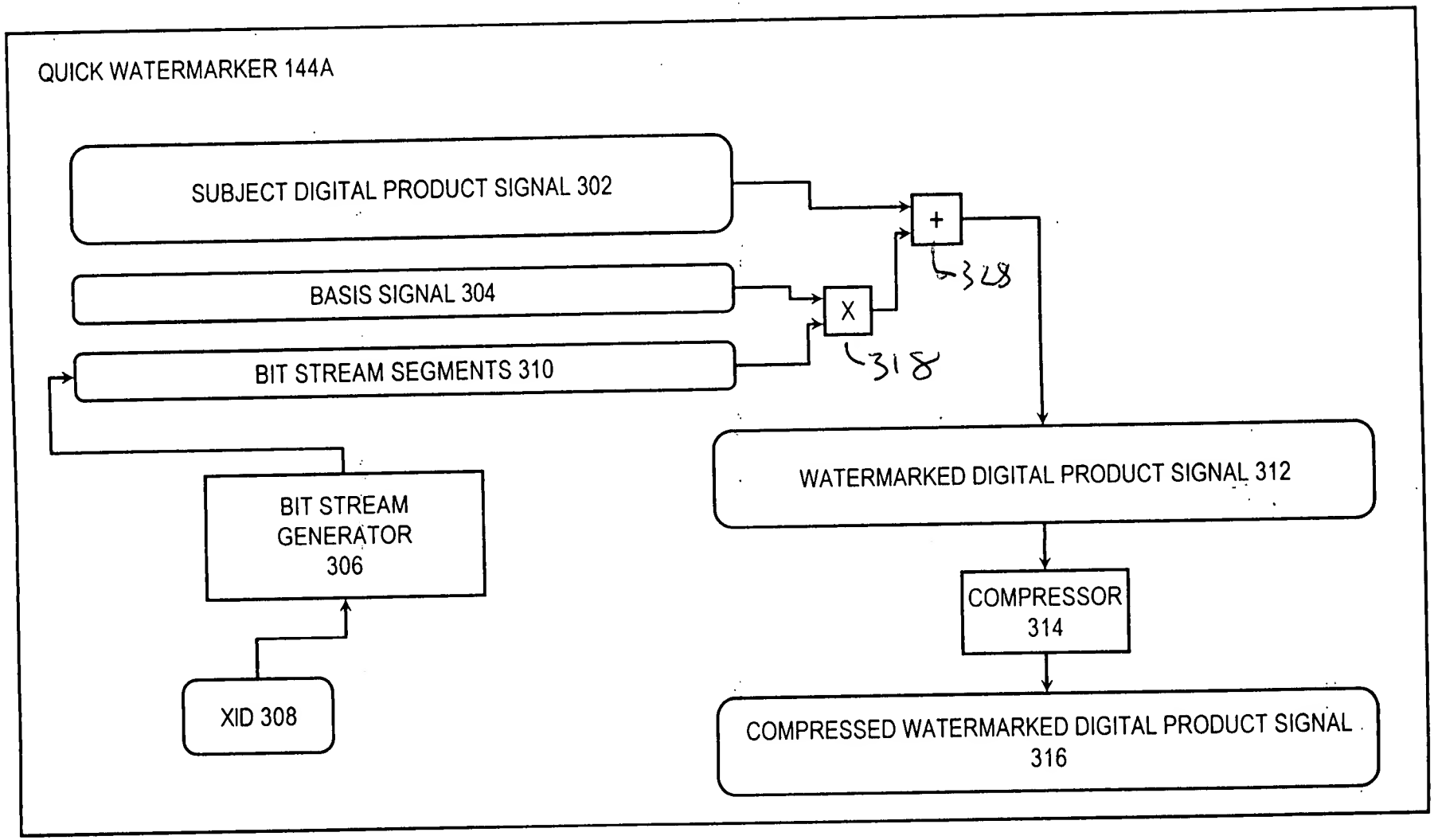

FIGURE 3

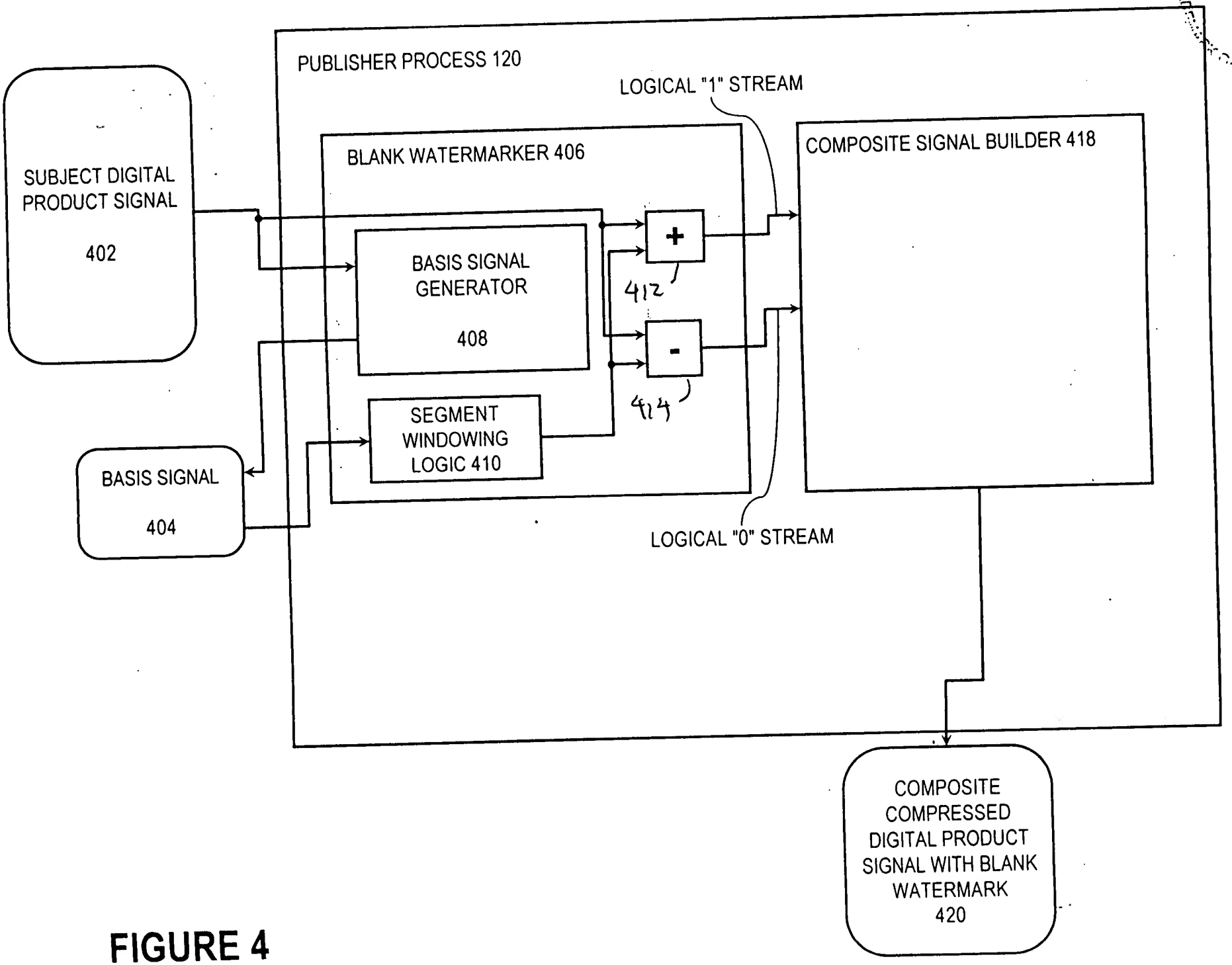

FIGURE 4

09/389842